

Delev 54537

Work Order ID 54219

December 3, 2009 12:41:46 PM



Page 1

Item ID: D3183-043

Accept

Revision ID: C1

Setup Start

Item Name: Bracket Assembly

Stop

Start Date: 12/03/09 Start Qty: 4.00



Required Date: 12/10/09 Req'd Qty: 4.00



Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center ID

Operation
Description

Draw Nbr

Revision Nbr

D3183

Rev C1

100



BAND SAW

Bandsaw

Memo

Jeaspa Bandsaw

Cut blanks: (1.500" x 2.250") 5.500" long

110



HAAS CNC VERTICAL MACHINING #1

HAAS I

Memo

HAAS CNC vertical machine #1

1-Machine D3183-3 as per Folio FA322 and Dwg D3183-1 Identify as D3183-
3-2-Deburr, 3-Scribe batch number

120



QC2- Inspect parts off machine FAI/FAIB

QC

Quality Control

Memo

0.00

0.00

0.00

0.00

H.A 09/12/05

4 Ø

H.A 09/12/06

4 Ø

H.A 09/12/06

4 Ø

Work Order ID 54219

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Page 2

Item ID: D3183-043

Revision ID: C1

Item Name: Bracket Assembly

Start Date: 12/03/09 Start Qty: 4.00

Required Date: 12/10/09 Req'd Qty: 4.00

Reference:

Approvals: Process Plan:

QC:

Date:

Date:

Tooling:

SPC (Y/N):

Cust Item ID:

Customer:

Setup Start

Stop

Run Start

Stop

Sequence ID/
Work Center ID

130



QC

Quality Control

Operation
Description

QC8- Inspect parts - second check

Memo

Set Up/
Run Hours

0.00

Draw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

140



Small Fab

Small Fab

Small Fab

Memo

0.00

0.00

150



QC

Quality Control

QC5- Inspect part completeness to step on W/O

Memo

0.00

0.00

→ 809/12/10

p

809/12/10 ④

84 p

Work Order ID 54219

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Page 3

Item ID: D3183-043

Accept

Revision ID: C1

Setup Start

Item Name: Bracket Assembly

Stop

Start Date: 12/03/09 Start Qty: 4.00



Required Date: 12/10/09 Req'd Qty: 4.00

**Reference:**

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center ID

160



Packaging

Operation
DescriptionIdentify as per dwg & Stock Location: 936Set Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

0.00

9/10/11

4258

170



QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

09/12/11 JF

U.S.12.11

Picklist Print

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Page 1

Work Order ID: 54219



Parent Item: D3183-043RevC1



Parent Item Name: Bracket Assembly

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location
---------------------------------	------------------------	---------------	-------------	---------------------	------------------

D3121-21RevE



Bolt

Manufactured

No

Start Date: 12/03/09
Start Qty: 4.00

Required Date: 12/10/09
Required Qty: 4.00

Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

140 Each 71.0000 8.0000

8/5/09/12/10

Warehouse

Location

Main Warehouse

ST

Loc Qty

Loc Code

46032

71

50096

5

52518

10

56

56

D3183-045RevC1



Bearing Assembly

Manufactured

No

100 Each 148.0000 8.0000

8/5/09/12/10

Warehouse

Location

Main Warehouse

ST

Loc Qty

Loc Code

46393

148

51560

3

52209

2

143

143

M174B1.500X02.250



17-4 SS Bar 1.50 X2.250

Purchased

No

140 f 15.5406 1.9297

8/5/09/12/10

Warehouse

Location

Main Warehouse

MAT

Loc Qty

Loc Code

108309

15.5406

→ 111899

0.82

14.7206

2.750" MA 09/12/05

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	54219
Description: Bracket	Part Number:	D3183-3
Inspection Dwg: D3183 Rev: C1		Page 1 of 1

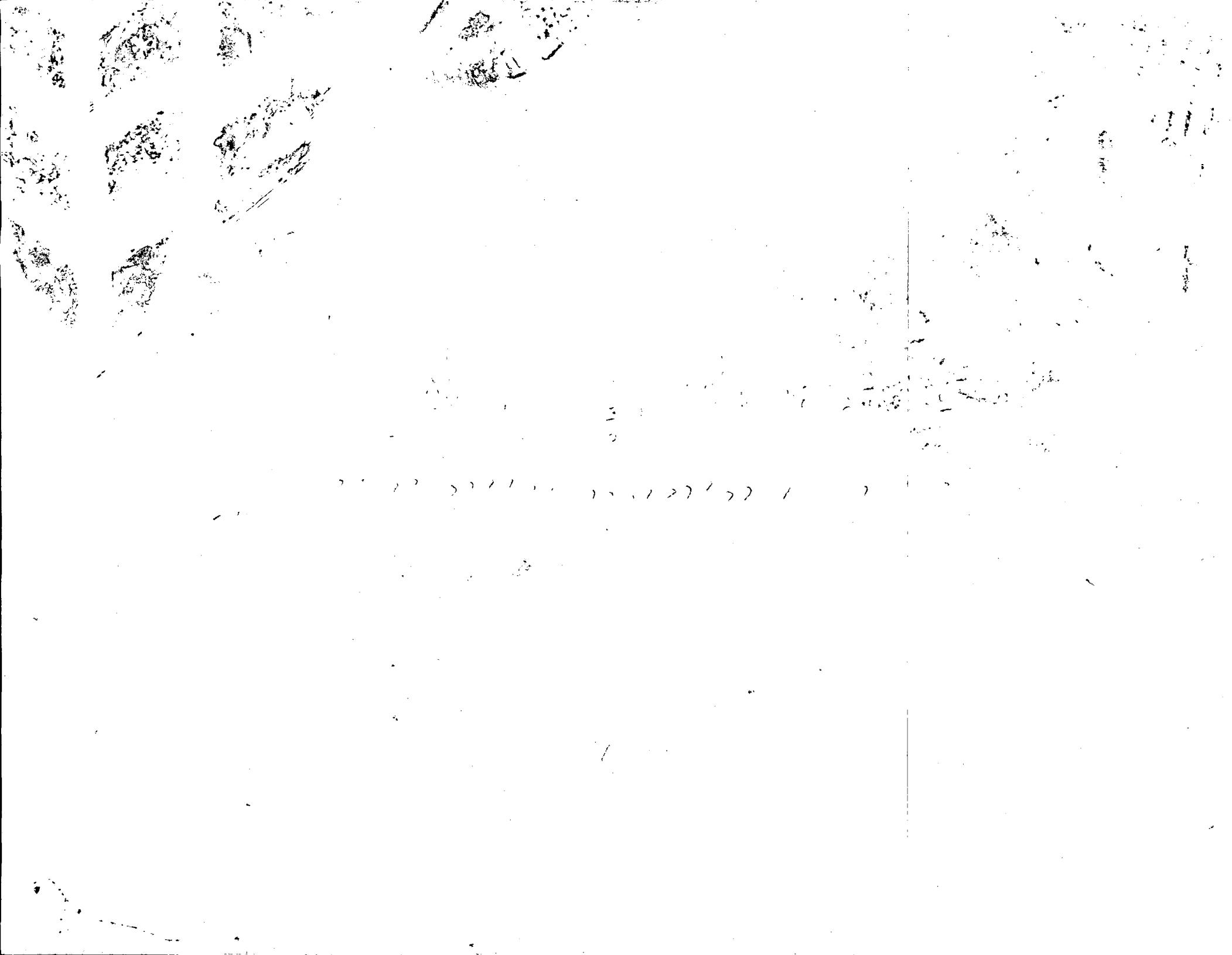
FIRST ARTICLE INSPECTION CHECKLIST

First Article Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
R0.190	+/-0.030	R0.190	✓			
R0.063	+/-0.010	R0.063	✓			
0.182	+/-0.010	0.181	✓			
0.070	+/-0.010	0.070	✓			
0.100	+/-0.010	0.101	✓			
Ø0.201 x 0.100	+/-0.010	Ø0.202 x 0.100	✓			
0.182	+/-0.010	0.180	✓			
5.32	+/-0.030	5.321	✓			
5.036	+/-0.010	5.036	✓			
2.120	+/-0.010	2.119	✓			
1.290	+/-0.010	1.290	✓			
0.365	+/-0.010	0.365	✓			
0.218	+/-0.010	0.214	✓			
1.030	+/-0.010	1.030	✓			
1.90	+/-0.030	1.888	✓			
1.012	+/-0.010	1.012	✓			
Ø0.201 x 0.100	+/-0.010	Ø0.202 x 0.100	✓			
0.786	+/-0.010	0.783	✓			
Ø0.392	+0.002/-0.000	Ø0.393	✓			
R0.19	+/-0.030	R0.190	✓			
3.954	+/-0.010	3.954	✓			
0.162	+/-0.010	0.163	✓			
R0.19	+/-0.030	R0.190	✓			
R0.25	+/-0.030	R0.250	✓			
4.26	+/-0.030	4.260	✓			
2.080	+/-0.030	2.080	✓			
1.155	+/-0.010	1.155	✓			
0.162	+/-0.010	0.164	✓			
0.36	+/-0.030	0.360	✓			
0.615	+/-0.010	0.617	✓			
0.435	+/-0.010	0.435	✓			
0.200	+/-0.010	0.200	✓			
0.381	+/-0.010	0.383	✓			
0.032	+/-0.010	0.031	✓			

Measured by:	H.A	Audited by:	JML	Prototype Approval:	N/A
Date:	09/12/10	Date:	09/12/10	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	03.11.12	New Issue P/O D3183-043	KJ/RF	
B	04.03.15	Changes as per revision C	KJ/JLM/RF	
C	06.03.09	Dwg Rev update	KJ/JLM	
D	08.01.28	0.182 dimension removed	KJEC/DD	



DART

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO.	REV. C
		D3183	SHEET 1 OF 4
DATE	04.02.17	TITLE	SCALE
		BRACKET ASSEMBLY	1:1

RELEASED
04.02.17

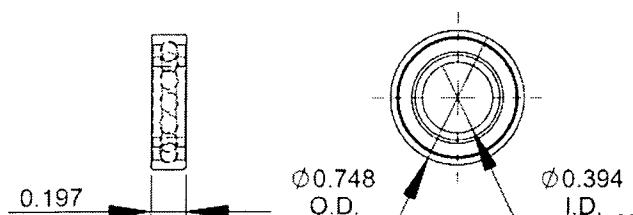
A	03.01.24	NEW ISSUE
B	03.06.17	REMOVE BEARING; 1.012 WS 0.882
C	04.02.17	ADD -045-9; 0.182 WAS 0.431

C: 04.02.17, 0.182 WAS 0.431

D3121-21 BOLT (1)
D3183-045 BEARING ASSEMBLY (1)D3121-21 BOLT (1)
D3183-045 BEARING ASSEMBLY (1)D3183-1 BRACKET FOR -041 (SHOWN)
OR
D3183-2 BRACKET FOR -042 (OPPOSITE)
OR
D3183-3 BRACKET FOR -043 (SIMILAR)
OR
D3183-4 BRACKET FOR -044 (SIMILAR)

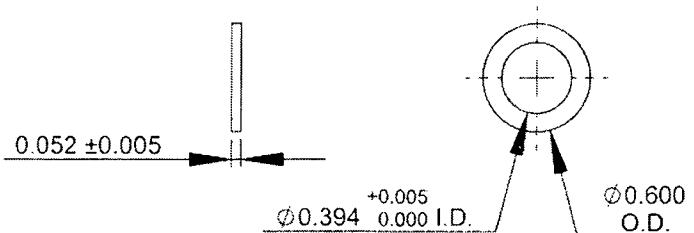
W/D 5429

D3183-041 BRACKET ASSEMBLY (SHOWN)
D3183-042 BRACKET ASSEMBLY (OPPOSITE)
D3183-043 BRACKET ASSEMBLY (SIMILAR)
D3183-044 BRACKET ASSEMBLY (SIMILAR)



D3183-5 BEARING: SPECIFICATION CONTROL DRAWING

- 1) SINGLE ROW, DEEP GROOVE, CONRAD TYPE, SHIELDED
- 2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ
- 3) ALL DIMENSIONS ARE IN INCHES



D3183-7 WASHER

- 1) MATERIAL: AISI 303 ROUND BAR (M303R) ANNEALED
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

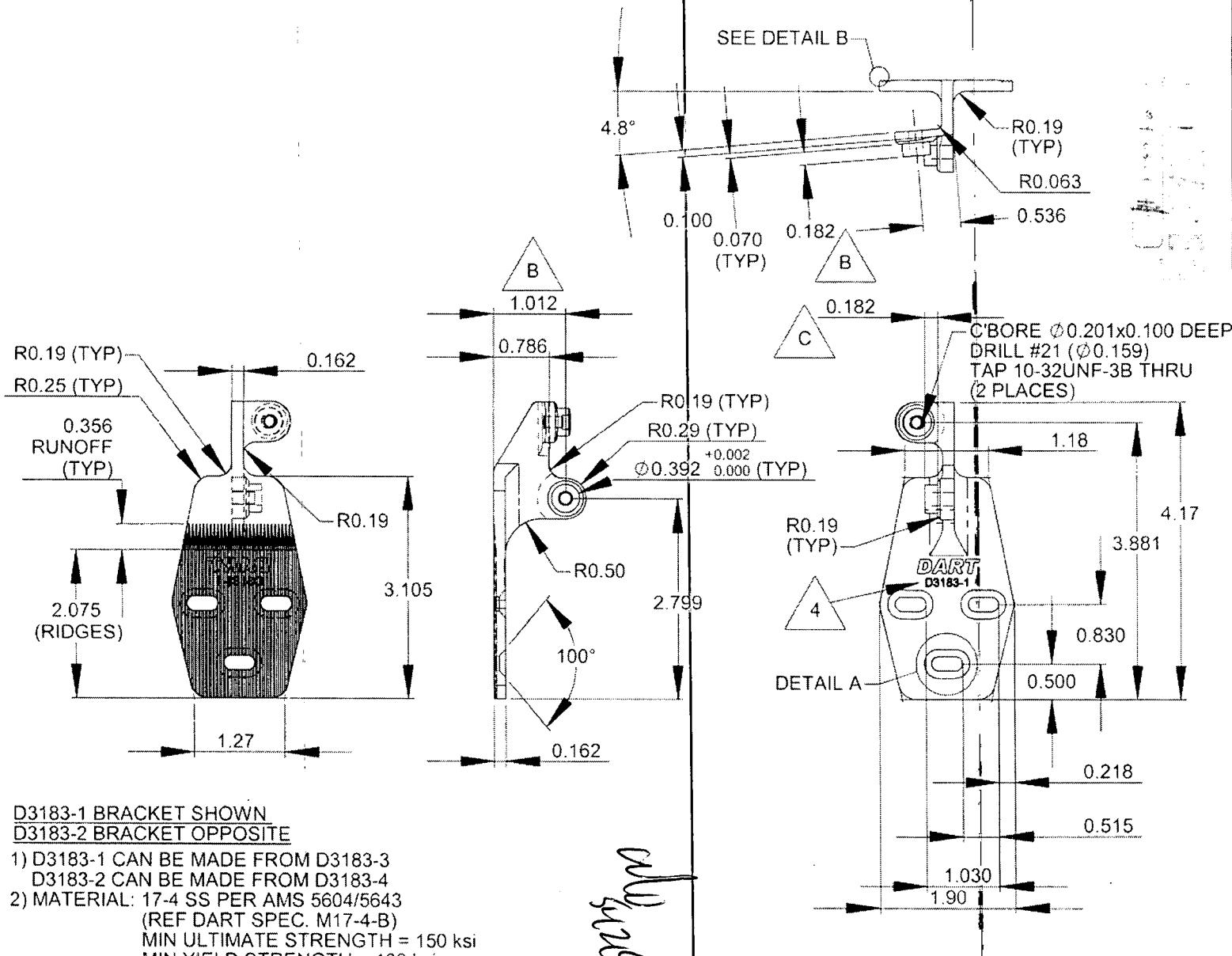
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DESIGN	DRAWN BY	DART AEROSPACE LTD
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		DRAWING NO.
		D3183
DATE		SHEET 2 OF 4
04.02.17		SCALE
	TITLE	1:2
	BRACKET ASSEMBLY	



D3183-1 BRACKET SHOWN

D3183-2 BRACKET OPPOSITE

- 1) D3183-1 CAN BE MADE FROM D3183-3
D3183-2 CAN BE MADE FROM D3183-4
 - 2) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
 - 3) BREAK ALL SHARP EDGES 0.005 TO 0.015
 - 4) ENGRAVE DART P/N & LOGO AS SHOWN
 - 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 6) ALL DIMENSIONS ARE IN INCHES
- W.M. 4/20*

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DESIGN	DRAWN BY	DART AEROSPACE LTD
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DATE	04.02.17	DRAWING NO.
		D3183
		TITLE
		BRACKET ASSEMBLY
		REV. C
		SHEET 3 OF 4
		SCALE
		1:2

D3183-3 BRACKET SHOWN
(REPLACES BELL P/N 412-030-304-105)

D3183-4 BRACKET OPPOSITE
(REPLACES BELL P/N 412-030-304-106)

1) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)

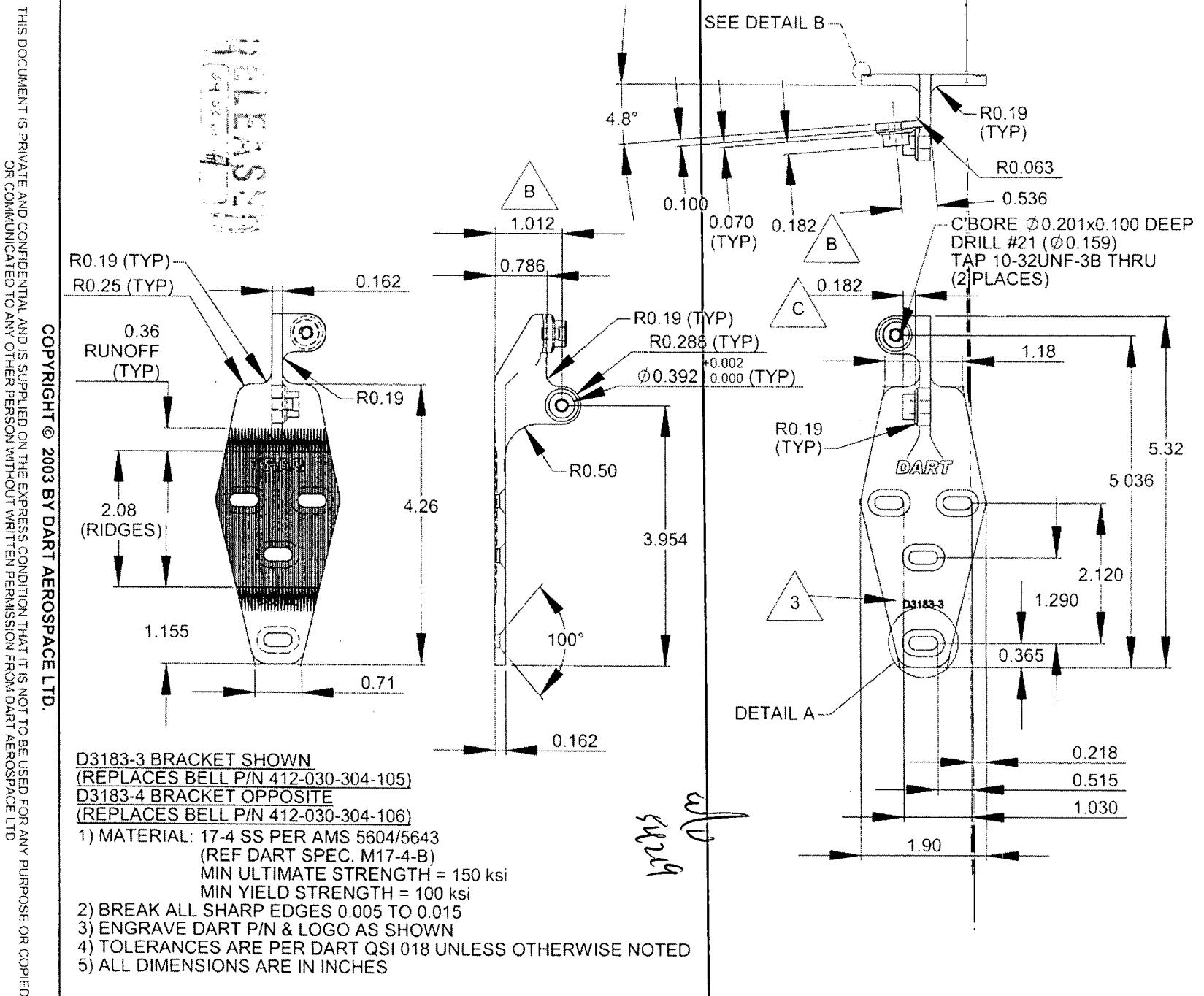
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi

2) BREAK ALL SHARP EDGES 0.005 TO 0.015

3) ENGRAVE DART P/N & LOGO AS SHOWN

4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

5) ALL DIMENSIONS ARE IN INCHES



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DATE	04.02.17	D3183	SHEET 4 OF 4

